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TAW

Petition For Revival Of An Application For Patent Abandoned Unintentionally Under 37 CFR 1.137(b) (Large Entity)				Docket No. 12558	
In Re Application Of: Ingemar J. Cox et al.					
Application No. 09/294,956	Filing Date April 20, 1999	Examiner Kambiz Zand	Customer No. 23389	Group Art Unit 2132	Confirmation No. 6648
Invention: METHOD AND DEVICE FOR INSERTING AND AUTHENTICATING A DIGITAL SIGNATURE IN DIGITAL DATA					
<p>Attention: Office of Petitions Mail Stop Petition COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, VA 22313-1450</p> <p>NOTE: If information or assistance is needed in completing this form, please contact Petitions Information at (571) 272-3282.</p> <p>The above-identified application became abandoned for failure to file a timely and proper response to a notice or action by the Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the Office notice or action plus any extension of time actually obtained.</p> <p style="text-align: center;">APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION</p> <p>NOTE: A grantable petition requires the following items:</p> <ul style="list-style-type: none">(1) Petition fee;(2) Reply and/or issue fee;(3) Terminal disclaimer with disclaimer fee--required for all utility and plant applications filed before June 8, 1995; and for all design applications filed on or after June 8, 1995.(4) Statement that the entire delay was unintentional. <p>1. <input checked="" type="checkbox"/> A proposed reply to the above-identified notice or action:</p> <p style="margin-left: 40px;"><input checked="" type="checkbox"/> is enclosed. <input type="checkbox"/> was filed on _____</p> <p style="margin-left: 40px;">The proposed reply is in the form of: <u>Request for Continued Examination; Submission Under 37 C.F.R. 1.114</u></p> <p>2. <input type="checkbox"/> The issue fee:</p> <p style="margin-left: 40px;"><input type="checkbox"/> is enclosed. <input type="checkbox"/> was paid on _____</p> <p style="margin-left: 40px; text-align: right;">05/05/2006 TBESHAH1 00000002 09294956 01 FC:1453 1500.00 OP</p> <p>3. <input checked="" type="checkbox"/> The abandoned application was a:</p> <p style="margin-left: 40px;"><input type="checkbox"/> design application. <input checked="" type="checkbox"/> utility application. <input type="checkbox"/> plant application.</p> <p>4. <input type="checkbox"/> A terminal disclaimer (and fee) disclaiming a period equivalent to the period of abandonment is enclosed.</p> <p>5. <input checked="" type="checkbox"/> Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.</p>					

**Petition For Revival Of An Application For Patent Abandoned
Unintentionally Under 37 CFR 1.137(b) (Large Entity)**

Docket No.
12558

In Re Application Of:

Ingemar J. Cox et al.

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/294,956	April 20, 1999	Kambiz Zand	23389	2132	6648

Invention:

**METHOD AND DEVICE FOR INSERTING AND AUTHENTICATING A
DIGITAL SIGNATURE IN DIGITAL DATA**

Calculation and Payment of Fees

Enclosed are the following fees:

6. <input checked="" type="checkbox"/> Petition fee under 37 CFR 1.17(m) in the amount of:	<u>\$1,500.00</u>
7. <input checked="" type="checkbox"/> Fee for reply in the amount of:	<u>\$790.00</u>
8. <input type="checkbox"/> Issue fee in the amount of:	<u> </u>
9. <input type="checkbox"/> Continuing application filing fee in the amount of:	<u> </u>
10. <input type="checkbox"/> Terminal disclaimer fee in the amount of:	<u> </u>
11. <input type="checkbox"/> _____	<u> </u>
Total fees enclosed:	<u>\$2,290.00</u>

The fee of **\$2,290** is to be paid as follows:

- ☒ A check in the amount of the fee is enclosed.
- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. **19-1013/SSMP**
- ☐ Payment by credit card. Form PTO-2038 is attached.

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**Petition For Revival Of An Application For Patent Abandoned
Unintentionally Under 37 CFR 1.137(b) (Large Entity)**

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In Re Application Of:

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Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/294,956	April 20, 1999	Kambiz Zand	23389	2132	6648

Invention:

**METHOD AND DEVICE FOR INSERTING AND AUTHENTICATING A
DIGITAL SIGNATURE IN DIGITAL DATA**

Statement

The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional. [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filing a petition under 37 CFR 1.137(b) was unintentional (MPEP 711.03(c), Subsections (III)(C) and (D)).]

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioner/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.


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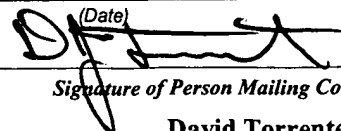
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Dated: May 1, 2006

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on

May 1, 2006

(Date)


Signature of Person Mailing Correspondence

David Torrente

Typed or Printed Name of Person Mailing Correspondence

DJT:ar

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Fax

To: Examiner Karbitz Zand
United States Patent and Trademark
Office

From: Paul J. Esatto, Jr., Esq.
David J. Tormenta, Esq.

Fax: 011-81-3-3456-4903

Pages: 28 (including cover sheet)

Phone: 011-81-3-3454-1111

Date: December 23, 2005

Re: Ingemar J. Cox et al.
SIGMAFY MATTER
U.S. Patent Appl. No. 09/294,698
Art. Unit: 2132
Confirmation No.: 6648
Our Docket: 12658

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Please acknowledge receipt of:

1. Combined Amendment and Petition for Extension of Time Transmittal (in duplicate)
2. Submission Under 37 C.F.R. 1.114
3. Request for Continued Examination
4. Authorization to Charge SSMP Deposit Account
5. Certificate of Facsimile dated December 23, 2005

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DR: Document Removed
FO: Forced Output
FM: Forward Mailbox Doc.

MB: Receive to Mailbox
PI: Power Interruption
TM: Terminated by user
WT: Waiting Transfer
WS: Waiting Send

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Fax

To: Examiner Kambiz Zand United States Patent and Trademark Office	From: Paul J. Esatto, Jr., Esq. David J. Torrente, Esq.
Fax: 011-81-3-3456-4903	Pages: 25 (including cover sheet)
Phone: 011-81-3-3454-1111	Date: December 23, 2005
Re: Ingemar J. Cox et al. SIGNAFY MATTER U.S. Patent Appln. No. 09/294,956 Art Unit: 2132 Confirmation No.: 6648 Our Docket: 12558	CC:
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL

Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	09/294,956
Filing Date	April 20, 1999
First Named Inventor	Ingemar J. Cox
Art Unit	2132
Examiner Name	Kambiz Zand
Attorney Docket Number	12558

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114**

Note: If the RCE is proper, any previously filed unentered and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

- a. ☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.
- i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ii. ☐ Other _____
- b. ☒ Enclosed
- i. ☒ Amendment/Reply
- ii. ☐ Affidavit(s)/Declaration(s)
- iii. ☐ Information Disclosure Statement (IDS)
- iv. ☒ Other Petition for Extension of Time (1 Month)

2. **Miscellaneous**


- a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)
- b. ☐ Other _____

3. **Fees**

- The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.
- a. ☒ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments to Deposit Account No. 19-1013/SSMP. I have enclosed a duplicate copy of this sheet.
- i. ☒ RCE fee required under 37 CFR 1.17(e)
- ii. ☐ Extension of time fee (37 CFR 1.136 and 1.17)
- iii. ☐ Other _____
- b. ☐ Check in the amount of \$ _____ enclosed
- c. ☐ Payment by credit card (Form PTO-2038 enclosed)

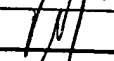
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Signature		Date	December 23, 2005
Name (Print / Type)	Paul J. Esatto, Jr.	Registration No.	30,749

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature		Date	December 23, 2005
Name (Print / Type)	Paul J. Esatto, Jr.		

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing the burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**COMBINED AMENDMENT & PETITION FOR EXTENSION OF
TIME UNDER 37 CFR 1.136(a) (Large Entity)**

Docket No.
12558

In Re Application Of: **Ingemar J. Cox et al.**

Application No. 09/294,956	Filing Date April 20, 1999	Examiner Kambiz Zand	Customer No. 23389	Group Art Unit 2132	Confirmation No. 6648
--------------------------------------	--------------------------------------	--------------------------------	------------------------------	-------------------------------	---------------------------------

Invention: **METHOD AND DEVICE FOR INSERTING AND AUTHENTICATING
A DIGITAL SIGNATURE IN DIGITAL DATA**

COMMISSIONER FOR PATENTS:

This is a combined amendment and petition under the provisions of 37 CFR 1.136(a) to extend the period for filing a response to the Office Action of **August 23, 2005** in the above-identified application.
Date

The requested extension is as follows (check time period desired):

☒ One month ☐ Two months ☐ Three months ☐ Four months ☐ Five months

from: **November 23, 2005** until: **December 23, 2005**
Date *Date*

The fee for the amendment and extension of time has been calculated as shown below:

CLAIMS AS AMENDED

	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST # PREV. PAID FOR	NUMBER EXTRA CLAIMS PRESENT	RATE	ADDITIONAL FEE
TOTAL CLAIMS	71 -	116 =	0	x \$50.00	\$0.00
INDEP. CLAIMS	2 -	17 =	0	x \$200.00	\$0.00
FEE FOR AMENDMENT					\$0.00
FEE FOR EXTENSION OF TIME					\$120.00
TOTAL FEE FOR AMENDMENT AND EXTENSION OF TIME					\$120.00

**COMBINED AMENDMENT & PETITION FOR EXTENSION OF
TIME UNDER 37 CFR 1.136(a) (Large Entity)**

Docket No.
12558

The fee for the amendment and extension of time is to be paid as follows:

- ☐ A check in the amount of _____ for the amendment and extension of time is enclosed.
- ☒ Please charge Deposit Account No. **19-1013/SSMP** in the amount of **\$120.00**
- ☒ The Director is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. **19-1013/SSMP**
- ☒ Any additional filing fees required under 37 C.F.R. 1.16.
- ☒ Any patent application processing fees under 37 CFR 1.17.
- ☒ If an additional extension of time is required, please consider this a petition therefor and charge any additional fees which may be required to Deposit Account No.
- ☐ Payment by credit card. Form PTO-2038 is attached.

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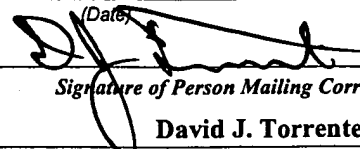
Signature

David J. Torrente
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(516) 742-4343 (telephone)
(516) 742-4366 (facsimile)

Dated: December 23, 2005

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(Date)



Signature of Person Mailing Correspondence

David J. Torrente

Typed or Printed Name of Person Mailing Correspondence

DJT:ar
cc:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Ingemar J. Cox et al.	Examiner:	Kambiz Zand
Serial No.:	09/294,956	Art Unit:	2132
Filed:	April 20, 1999	Docket:	12558
For:	METHOD AND DEVICE FOR INSERTING AND AUTHENTICATING A DIGITAL SIGNATURE IN DIGITAL DATA	Conf. No.:	6648
		Dated:	December 23, 2005

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUBMISSION UNDER 37 C.F.R. § 1.114


Sir:

This paper is filed concurrently with a Request for Continued Examination under 37 C.F.R. § 1.114, and in fulfillment of the requirement for a submission therein. This paper is also responsive to the Office Action mailed 23 August 2005 in the above-captioned application. Applicant kindly solicits and early and favorable notice of allowability on all pending claims in light of the following amendments and accompanying remarks. Please amend the application as follows.

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Dated: December 23, 2005



David J. Torrente

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior claim versions and listings:

Claims 1-134 (Cancelled)

135. (New) A method for inserting a digital signature into digital data, the digital data comprising bits, the method comprising the steps of:

- assigning predetermined bits of the digital data for receiving the digital signature;
- inserting associated data into the digital data;
- signing the digital data excluding the predetermined bits resulting in the digital signature;
- inserting the digital signature into the predetermined bits of the digital data for subsequent authentication of the digital data and the associated data; and
- receiving the associated data from a Global Positioning Satellite transmission;
- wherein at least a portion of the associated data comprises data identifying a public key needed to decrypt the digital signature.

136. (New) The method of claim 135, wherein the signing step comprises:

- applying a one-way hashing function to the digital data excluding said predetermined bits resulting in a hash; and encrypting the hash.

137. (New) The method of claim 135, wherein the digital data is selected from a group consisting of image data, video data, and audio data.

138. (New) The method of claim 135, wherein the associated data is inserted into the bits of the digital data excluding the predetermined bits.

139. (New) The method of claim 135, wherein the digital data comprises a plurality of samples, each of the samples being defined by a plurality of the bits, from a most significant bit to a least significant bit, all of the least significant bits defining the plurality of samples comprising a least significant bit plane, wherein the predetermined bits comprise at least a portion of the least significant bit plane.

140. (New) The method of claim 139, wherein the digital data is an image and each sample is an image pixel.

141. (New) The method of claim 139, wherein the digital data is video and each sample is a spatial temporal sample.

142. (New) The method of claim 139, wherein the digital data is audio and each sample is a time sample.

143. (New) The method of claim 139, wherein the associated data is inserted into at least a portion of the remaining least significant bits in the least significant bit plane.

144. (New) The method of claim 135, wherein the digital data comprises a plurality of samples, each of the samples being defined by a plurality of the bits, further comprising the step of

transforming the plurality of bits into an alternative representation having at least first and second characteristic components, wherein the predetermined bits comprise the first characteristic component.

145. (New) The method of claim 144, wherein the digital data is an image and each sample is an image pixel.

146. (New) The method of claim 144, wherein the digital data is video and each sample is a spatial temporal sample.

147. (New) The method of claim 144, wherein the digital data is audio and each sample is a time sample.

148. (New) The method of claim 144, wherein the associated data is inserted into at least a portion of the second characteristic component.

149. (New) The method of claim 148, wherein the alternative representation is a frequency domain representation having high and low frequency components, wherein the first characteristic component is a portion of the high frequency component and the second characteristic component is the remaining high frequency component and the low frequency component.

150. (New) The method of claim 135, wherein the associated data comprises data identifying a source of the digital data.

151. (New) The method of claim 135, wherein the associated data comprises data identifying the identity of an owner of the digital data.

152. (New) The method of claim 151, wherein the digital data is an image and the associated data comprises data identifying a photographer of the image.

153. (New) The method of claim 135, wherein a portion of the associated data is encrypted and a remaining portion of the associated data is unencrypted.

154. (New) The method of claim 135, wherein the associated data comprises at least two fields.

155. (New) The method of claim 154, wherein at least one other field comprises data identifying the owner of the public key.

156. (New) The method of claim 135, wherein the digital data is compressed using a compression standard resulting in a compressed file, wherein the method further comprises the steps of:

creating a decompressed file prior to the signing step; signing the decompressed file resulting in the digital signature; and

inserting the digital signature into a header in the compressed file instead of inserting the same into the digital data.

157. (New) The method of claim 156, wherein the digital data is an image and the compression standard is JPEG.

158. (New) The method of claim 156, wherein the digital data is video and the compression standard is MPEG.

159. (New) The method of claim 135, wherein the digital data is compressed using a compression standard resulting in a compressed file, wherein the method further comprises the steps of:

creating a decompressed file prior to the signing step;

inserting the associated data into the decompressed file;

signing the decompressed file resulting in the digital signature; and

inserting the digital signature and associated data into a header in the compressed file instead of inserting the same into the digital data.

160. (New) The method of claim 159, wherein the digital data is an image and the compression standard is JPEG.

161. (New) The method of claim 159, wherein the digital data is video and the compression standard is MPEG.

162. (New) The method of claim 135, wherein the digital data comprises a plurality of samples, each of the samples being defined by a plurality of the bits, from a most significant bit to a least significant bit, all of the least significant bits defining the plurality of samples comprising a least significant bit plane, wherein the method further comprises the steps of:

ignoring the least significant bit plane in the digital data;

concatenating the associated data to the digital data having the ignored least significant bit plane prior to the signing step;

performing the signing step to the digital data having concatenated associated data resulting in the digital signature;

wherein the predetermined bits comprise at least a portion of the least significant bit plane and the associated data is inserted into at least a portion of the remaining least significant bits in the least significant bit plane.

163. (New) The method of claim 135, further comprising the steps of:

providing time data identifying the time the digital data was created;

concatenating the hash and the time data;

applying a one-way hashing function to the concatenated hash and time data resulting in a second hash; and

encrypting the second hash instead of the first hash to result in a time stamp containing the digital signature, wherein both the digital data and the time data are subsequently authenticated.

164. (New) The method of claim 163, further comprising the steps of:

transmitting the hash and signature to a third party for performance of the providing, concatenating, and encrypting steps; and

receiving the time stamp from the third party prior to the inserting step.

165. (New) The method of claim 164, wherein the trusted third party resides at an internet address and the transmitting and receiving steps are done through the internet.

166. (New) The method of claim 163, wherein the time stamp is provided by a semiconductor chip having a tamper resistant clock and a tamper resistant time stamping circuit, wherein the clock outputs the time data which together with the digital signature is signed by the circuit to output the time stamp.

167. (New) The method of claim 135, further comprising the steps of:

storing an identifier in a memory corresponding to each of at least one user of a device which creates the digital data;

recognizing a user of the device whose identifier is stored in the memory; and

outputting the identifier corresponding to the recognized user from the memory to be inserted as the associated data.

168. (New) The method of claim 167, further comprising the steps of storing a private key for signing the digital data in the memory corresponding to each user and using the private key for signing the digital data.

169. (New) The method of claim 167, wherein the recognizing step is accomplished by a fingerprint recognition system.

170. (New) The method of claim 167, wherein the identifier is a name of the recognized user.

171. (New) An encoder for inserting a digital signature into digital data, the digital data comprising bits, the encoder comprising:

means for assigning predetermined bits of the digital data for receiving the digital signature;

means for signing the digital data excluding the predetermined bits resulting in the digital signature;

means for inserting the digital signature into the predetermined bits of the digital data for subsequent authentication of the digital data;

means for inserting associated data into the digital data prior to signing the digital data such that the encoder authenticates both the associated data as well as the digital data; and

means for receiving the associated data from a Global Positioning Satellite transmission;

wherein at least a portion of the associated data comprises data identifying a public key needed to decrypt the digital signature and at least a portion of the associated data comprises data identifying the identity of an owner of the digital data.

172. (New) The encoder of claim 171, wherein the means for signing comprises:

means for applying a one-way hashing function to the digital data excluding said predetermined bits resulting in a hash; and
encrypting the hash.

173. (New) The encoder of claim 171, wherein the digital data is selected from a group consisting of image data, video data, and audio data.

174. (New) The encoder of claim 171, wherein the associated data is inserted into the bits of the digital data excluding the predetermined bits.

175. (New) The encoder of claim 171, wherein the digital data comprises a plurality of samples, each of the samples being defined by a plurality of the bits, from a most significant bit to a least significant bit, all of the least significant bits defining the plurality of samples comprising a least significant bit plane, wherein the predetermined bits comprise at least a portion of the least significant bit plane.

176. (New) The encoder of claim 175, wherein the digital data is an image and each sample is an image pixel.

177. (New) The encoder of claim 175, wherein the digital data is video and each sample is a spatial temporal sample.

178. (New) The encoder of claim 175, wherein the digital data is audio and each sample is a time sample.

179. (New) The encoder of claim 175, wherein the associated data is inserted into at least a portion of the remaining least significant bits in the least significant bit plane.

180. (New) The encoder of claim 171, wherein the digital data is an image comprising a plurality of samples, each of the samples being defined by a plurality of the bits, further comprising means for transforming the plurality of bits into an alternative representation having at least first and second characteristic components, wherein the predetermined bits comprise the first characteristic component.

181. (New) The encoder of claim 180, wherein the digital data is an image and each sample is an image pixel.

182. (New) The encoder of claim 180, wherein the digital data is video and each sample is a spatial temporal sample.

183. (New) The encoder of claim 180, wherein the digital data is audio and each sample is a time sample.

184. (New) The encoder of claim 180, wherein the associated data is inserted into at least a portion of second characteristic component.

185. (New) The encoder of claim 184, wherein the alternative representation is a frequency domain representation having high and low frequency components, wherein the first characteristic component is a portion of the high frequency component and the second characteristic component is the remaining high frequency component and the low frequency component.

186. (New) The encoder of claim 171, wherein the associated data comprises data identifying a source of the digital data.

187. (New) The encoder of claim 171, wherein the digital data is an image and the associated data comprises data identifying a photographer of the image.

188. (New) The encoder of claim 171, wherein a portion of the associated data is encrypted and a remaining portion of the associated data is unencrypted.

189. (New) The encoder of claim 171, wherein the associated data comprises at least two fields.

190. (New) The encoder of claim 171, wherein at least one of the fields comprises data identifying the owner of the public key.

191. (New) The encoder of claim 171, wherein the digital data is compressed using a compression standard resulting in a compressed file, wherein the encoder further comprises:

means for creating a decompressed file prior to signing the digital data;
means for signing the decompressed file resulting in the digital signature; and
means for inserting the digital signature into a header in the compressed file instead of inserting the same into the digital data.

192. (New) The encoder of claim 191, wherein the digital data is an image and the compression standard is JPEG.

193. (New) The encoder of claim 191, wherein the digital data is video and the compression standard is MPEG.

194. (New) The encoder of claim 171, wherein the digital data is compressed using a compression standard resulting in a compressed file, wherein the encoder further comprises:

means for creating a decompressed file prior to signing the digital data;
means for inserting the associated data into the decompressed file;
means for signing the decompressed file with the associated data inserted therein
resulting in the digital signature; and
means for inserting the digital signature and associated data into a header in the compressed file instead of inserting the same into the digital data.

195. (New) The encoder of claim 194, wherein the digital data is an image and the compression standard is JPEG.

196. (New) The encoder of claim 194, wherein the digital data is video and the compression standard is MPEG.

197. (New) The encoder of claim 171, wherein the digital data comprises a plurality of samples, each of the samples being defined by a plurality of the bits, from a most significant bit to a least significant bit, all of the least significant bits defining the plurality of samples comprising a least significant bit plane, wherein the encoder further comprises:

means for ignoring at least a portion of the least significant bit plane in the digital data;

means for concatenating the associated data to the digital data having the ignored least significant bit plane prior to signing the digital data;

means for signing the digital data having the concatenated associated data resulting in the digital signature;

wherein the predetermined bits comprise at least a portion of the least significant bit plane and the associated data is inserted into at least a portion of the remaining least significant bits in the least significant bit plane.

198. (New) The encoder of claim 171, further comprising:

means for providing time data identifying the time the digital data was created;

means for concatenating the hash and the time data;

means for applying a one-way hashing function to the concatenated hash and time data resulting in a second hash; and

means for encrypting the second hash instead of the first hash to result in a time stamp containing the digital signature, wherein both the digital data and the time data are subsequently authenticated.

199. (New) The encoder of claim 198, further comprising:

means for transmitting the hash to a third party for providing the time stamp and concatenating the hash and time stamp; and

means for receiving the second hash from the third party prior to encryption.

200. (New) The encoder of claim 199, wherein the trusted third party resides at an internet address and the means for transmitting and receiving is a computer capable of accessing the internet and receiving the transmitted second hash.

201. (New) The encoder of claim 198, further comprising a semiconductor chip having a tamper resistant clock and a tamper resistant time stamping circuit, wherein the clock outputs the time data which together with the digital signature is signed by the circuit to output the time stamp.

202. (New) The encoder of claim 171, further comprising:

a memory for storing an identifier corresponding to each of at least one user of a device which creates the digital data;

recognition means for recognizing a user of the device whose identifier is stored in the memory; and

output means for outputting the identifier corresponding to the recognized user from the memory to be inserted as the associated data.

203. (New) The encoder of claim 202, wherein a private key for signing the digital data is also stored in memory corresponding to each user, wherein the identifier is inserted as associated data and the private key is used to sign the digital data.

204. (New) The encoder of claim 203, wherein the recognition means is a fingerprint recognition system.

205. (New) The encoder of claim 204, wherein the identifier is a name of the recognized user.

REMARKS

As amended above, claims 135-205 are pending in the instant application. Claims 135-205 correspond directly to claims 1-3, 5-16, 18-22, 24, 27-41, 47-49, 51-62, 64, 66-68, 70 and 73-87 as previously present in the instant application. These claims are believed to be allowable over the prior art in light of the Examiner's indication in the Office Action mailed 31 December 2001. Moreover, these claims are limited to those defined as Group I according to the Restriction Requirement mailed 09 March 2004. Finally, these claims are directed to the subject matter described in the original specification at p. 5, line 20 – p. 6, line 16, consistent with the Examiner's suggestion in remarks attached to the Advisory Action mailed 08 November 2005.

Therefore, in light of the foregoing, Applicant respectfully submits that all claims recite patentable subject matter, and that the instant Application is in condition for allowance. If the Examiner had any reservation in allowing the claims, he is kindly requested to telephone the undersigned at his earliest convenience.

Respectfully submitted,



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